

**PCB Hot Spot Area TCRA
Project Status Update
BCT Meeting July 28, 2011**



Acceptance Sampling, RSY Pad – July 13, 2011



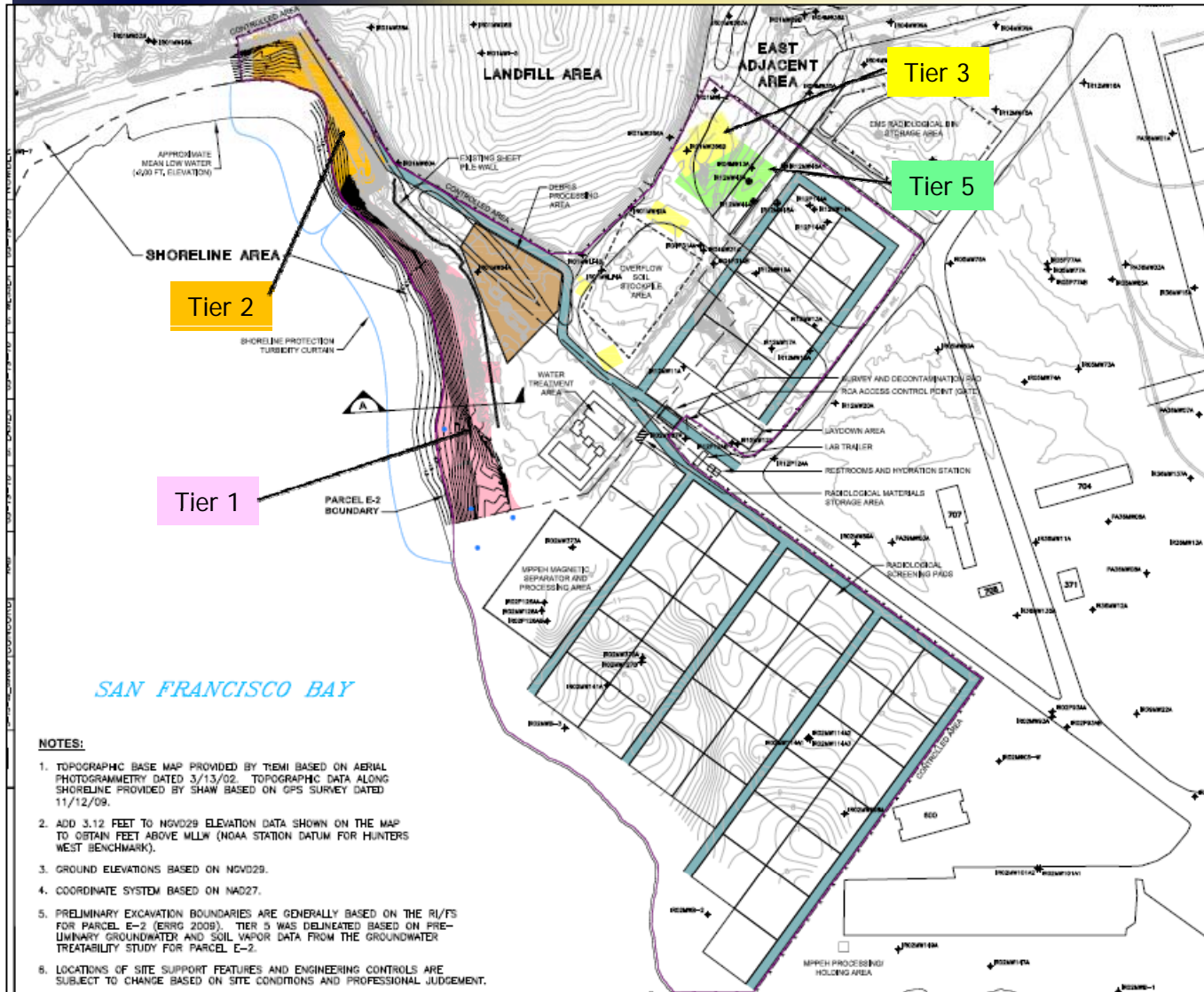
Outline



- Update on TCRA Progress
 - Tiers 3 & 5
 - Tier 2
 - Tier 1
 - MPPEH Acceptance Sampling
 - Radiological Confirmation Sample Results
 - Radiological Commodities
 - Suspect Asbestos Encounter
- What's Next
- Schedule

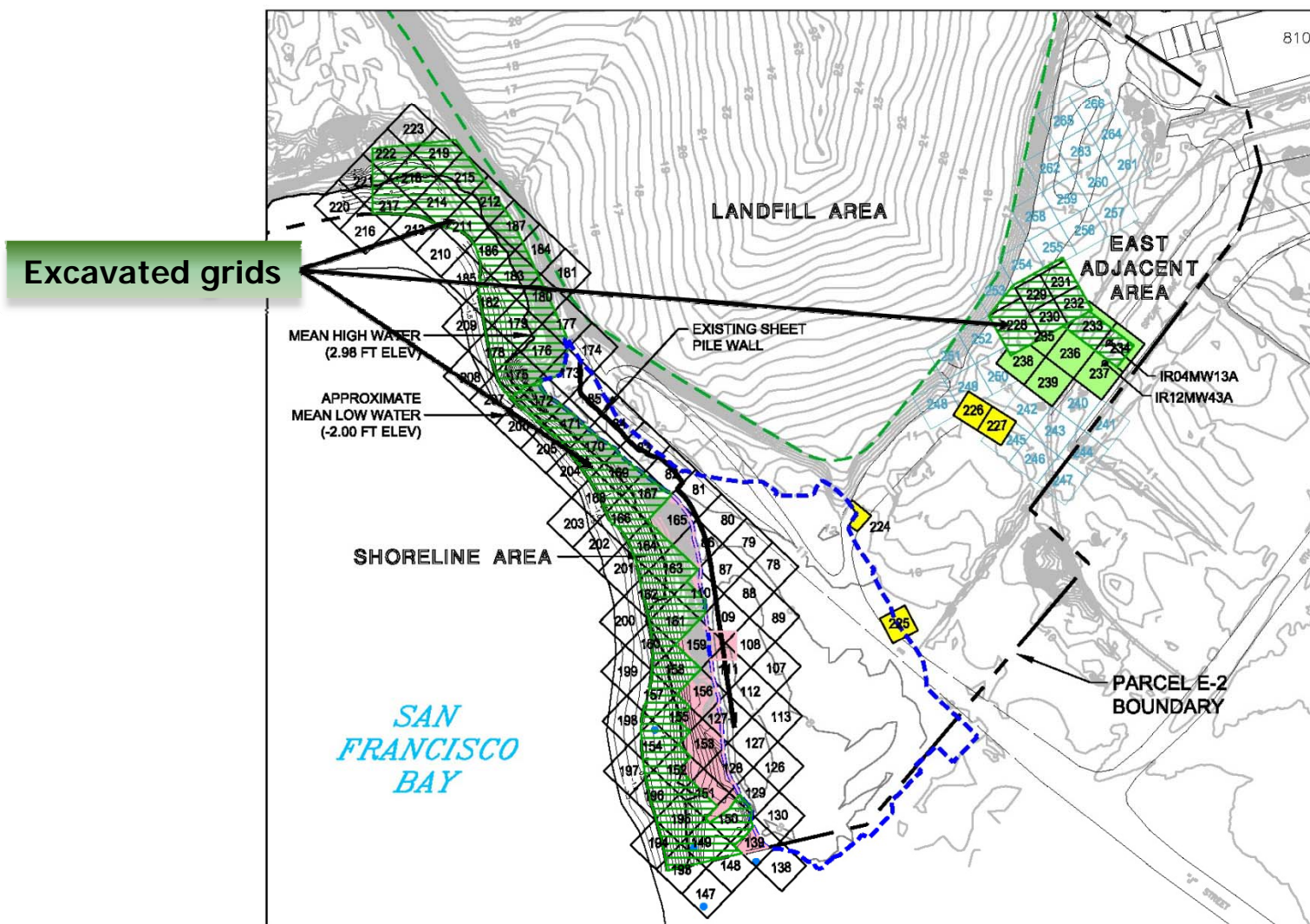


Site Layout Map





TCRA Progress – Completed Excavations





Update Tiers 3 and 5



- Commenced excavation in Tiers 3 and 5 (Upland Area) on August 30, 2010
- 100% of original Tier 3 grids excavated to depth (3-10 feet bgs) and confirmation sampled
- Over-excavated top 3 feet (vertically) in Tier 3, Grids 231 and 232 for lead in May 2011
- Confirmation results show over-excavation required for lead and TPH
- Final conditions survey commenced July 19



Update Tiers 3 and 5 (continued)



Over-excavations in Tier 3

| Tier | Grid | Depth (ft) | Pb Conc (mg/kg) (PAL=19,700) | TPH Conc (mg/kg) (PAL=3,500) | Comment |
|----------------|------|------------|---------------------------------|---------------------------------|--|
| SIDEWALL GRIDS | | | | | |
| 3 | 231 | 2 | 23,000 | 6,000 | To be addressed in August |
| 3 | 253 | 3.6 | 19,700 | Not exceeded | Over-excavated and removed Resampled at same depth and new sample below all PALs (Pb = 960 ppm) |

- Over-excavated Grid 253 (3 ft towards the landfill and 25 ft on each side of the sidewall sample location) based on direction received during June BCT site walk
 - Sidewall confirmation sample recollected at same depth
 - Result is significantly below the lead PAL
- Grid 231 will be addressed in August
- Tier 5 grids - No over-excavation required to date



Update Tiers 3 and 5 (continued)



Tiers 3 and 5 Looking East – June 8, 2011



Update Tier 2



- Commenced excavation of Tier 2 on October 19, 2010
- Stopped excavation activities in December 2010 through mid-April 2011
- 100% of grids excavated, sampled, and backfilled with clean sand
- Over-excavation was required in six grids
- Over-excavations completed with the exception of Grid 177 sidewall
- Construction access road currently prevents over-excavation of Grid 177 sidewall - will be over-excavated after geotechnical investigation



Update Tier 2 (continued)



Over-Excavations for PCBs

| Tier | Grid | Depth (ft) | PCBs (mg/kg) | Comment |
|-------------------------|------|------------|--------------|--|
| BOTTOM OVER-EXCAVATIONS | | | | |
| 2 | 176 | 4.7 | 8.2 | Over-excavated to 10 ft bgs Below all PALs at 10 ft bgs |
| 2 | 179 | 5.5 | 23.0 | Over-excavated to 10 ft bgs Below all PALs at 10 ft bgs |
| 2 | 185 | 3.6 | 20.7 | Over-excavated to 10 ft bgs Below all PALs at 10 ft bgs |
| 2 | 209 | 4.3 | 133 | Over-excavated to 10 ft bgs PCB PAL exceeded at 10 ft bgs and will remain in place |

Soil/Sediment PALs = 7.4/1.8 mg/kg



Update Tier 2 (continued)



Over-Excavations for Metals

| Tier | Grid | Depth (ft) | Cu (mg/kg) | Pb (mg/kg) | Comment |
|---------------------------|------|------------|------------|--------------|--|
| SIDEWALL OVER-EXCAVATIONS | | | | | |
| 2 | 177 | 3.8 | 12,000 | Not Exceeded | Over-excavated Resampled and Cu PAL is exceeded (5,800 ppm at 3.1 ft bgs). To be removed at a later date, access road currently prevents over-excavation |
| 2 | 183 | 3.4 | 11,000 | 2,100 | Over-excavated into Grids 180 & 184 Grid 180 SW is below all PALs PALs exceeded in Grid 184, will remain in place due to proximity to landfill |
| | | 4.7 | 5,700 | Not Exceeded | |

Metal concentrations below the Project Action Limits are not listed in this table

Copper Soil/Sediment PALs = 4,700/2,700 mg/kg

Lead Soil/Sediment PALs = 1,970/2,180 mg/kg



Update Tier 2 (continued)



Remaining Contamination in Tier 2

| Tier | Grid | Depth (ft) | PCBs (mg/kg) | TPH (mg/kg) | Cu (mg/kg) | Pb (mg/kg) | Comment |
|------------------|------|------------|--------------|-------------|------------|------------|-----------------------|
| BOTTOM SAMPLES | | | | | | | |
| 2 | 177 | 15.0 | 48.1 | NE | NE | NE | Below 10 ft bgs |
| 2 | 182 | 4.3 | 8.1 | NE | NE | NE | In Parcel F |
| 2 | 209 | 10.1 | 9.8 | NE | NE | NE | Below 10 ft bgs |
| SIDEWALL SAMPLES | | | | | | | |
| 2 | 182 | 2.8 | 3.4 | NE | NE | NE | Parcel F boundary |
| 2 | 184 | 3.4 | 22 | NE | NE | NE | Proximity to landfill |
| | | 7.5 | 116 | 6,521 | 4,500 | 38,000 | Proximity to landfill |
| 2 | 186 | 3.1 | 8.8 | NE | NE | NE | Parcel F boundary |
| 2 | 211 | 2.2 | 3.2 | NE | NE | NE | Parcel F boundary |
| 2 | 214 | 3.0 | 4.7 | NE | NE | NE | Parcel F boundary |

Soil/Sediment PALs:

PCBs = 7.4/1.8 mg/kg; TPH = 3,500/3,500 mg/kg; Cu = 4,700/2,700 mg/kg; Pb = 1,970/2,180 mg/kg



Update Tier 1



- Commenced excavation of Tier 1 on May 11, 2011
- Approximately 51% of grids excavated, sampled, and backfilled
- Received 92% of collected confirmation sample results, remaining are pending
- Currently, two grids require over-excavation



View of Tier 1, looking northwest



Update Tier 1 (continued)



Over-Excavations for PCBs

| Tier | Grid | Depth (ft) | PCBs (mg/kg) | Comment |
|-------------------------|------|------------|--------------|----------------------|
| BOTTOM OVER-EXCAVATIONS | | | | |
| 1 | 170 | 4 | 10.8 | To be over-excavated |
| 1 | 198 | 3 | 7.2 | To be over-excavated |

Soil/Sediment PALs = 7.4/1.8 mg/kg



Update Tier 1 (continued)



Remaining Contamination at Tier 1 Boundary

| Tier | Grid | Depth (ft) | TPH (mg/kg) | Comment |
|--------------|------|---------------|----------------|-----------------|
| BOTTOM GRIDS | | | | |
| 1 | 148 | 11.0 | 5,416 | Below 10 ft bgs |
| 1 | 149 | 14.3 | 4,529 | Below 10 ft bgs |

Soil/Sediment PALs:

TPH = 3,500/3,500 mg/kg



Update Tier 1 (continued)



Remaining Contamination at Tier 1 Boundary

| Tier | Grid | Depth (ft) | PCBs (mg/kg) | TPH (mg/kg) | Comment |
|----------------|------|------------|--------------|-------------|-----------------------|
| SIDEWALL GRIDS | | | | | |
| 1 | 139 | 1.7 | 53.0 | NE | Parcel E/E-2 boundary |
| 1 | 148 | 2.5 | 10.0 | NE | Parcel E/E-2 boundary |
| | | 5.7 | NE | 3,600 | Parcel E/E-2 boundary |
| 1 | 149 | 2.8 | 9.3 | NE | Parcel E/E-2 boundary |
| | | 7.6 | NE | 14,904 | Parcel E/E-2 boundary |
| 1 | 160 | 1.9 | 4.7 | NE | Parcel F boundary |
| | | 3.2 | 9.8 | NE | Parcel F boundary |
| 1 | 193 | 1.9 | 2.0 | NE | Parcel E/E-2 boundary |
| | | 4.2 | 14.0 | NE | Parcel E/E-2 boundary |
| 1 | 194 | 2.7 | 5.8 | NE | Parcel E/E-2 boundary |
| 1 | 198 | 2.5 | 3.5 | NE | Parcel F boundary |

Soil/Sediment PALs: PCBs = 7.4/1.8 mg/kg; TPH = 3,500/3,500 mg/kg

NE – not exceeded



Update Tier 1 (continued)



Geofabric from first TCRA visible in sidewall of Grid 150 – July 13, 2011



Update Tier 1 (continued)



Removing cables from Grid 150 – July 6, 2011



Update Tier 1 (continued)



View of Tier 1 from Tier 2 – July 13, 2011



Update Tier 1 (continued)



Shoreline and drying cells located in areas to be excavated – July 13, 2011



Confirmation Sample Results Exceeding Radiological Release Criteria



| Grid 154 (Tier 1) | Sr-90 (pCi/g) | Ra-226 (pCi/g) | Cs-137 (pCi/g) |
|-------------------|---------------|----------------|----------------|
| G154-B-4 | Data pending | 4.335E-01 | 1.085E-02 |
| G154-SW-4 | 0.449 | 7.591E-01 | 1.492E-04 |

Grid 154 (Tier 1, Sheet 3): Sidewall facing Parcel F exceeds radiological release criteria. Project action limits (PALs) for chemical analytes have been met. Currently no further action planned.

| Grid 198 (Tier 1) | Sr-90 (pCi/g) | Ra-226 (pCi/g) | Cs-137 (pCi/g) |
|-------------------|---------------|----------------|----------------|
| G198-B-3 | 0.519 | 6.078E-01 | 1.739E-02 |
| G198-SW-2 | 0.256 | 4.487E-01 | 1.146E-02 |

Grid 198 (Tier 1, Sheet 3): Bottom exceeds PALs for PCB and will be over-excavated.

| Grid 204 (Tier 1) | Sr-90 (pCi/g) | Ra-226 (pCi/g) | Cs-137 (pCi/g) |
|-------------------|---------------|----------------|----------------|
| G204-B-3 | 0.390 | 1.120 | -2.739E-03 |
| G204-SW-3 | -0.0418 | 1.175 | 6.031E-04 |

Grid 204 (Tier 1, Sheet 1): Bottom exceeds radiological release criteria. Project action limits (PALs) for chemical analytes have been met. Currently no further action planned.

| Grid 217 (Tier 2) | Sr-90 (pCi/g) | Ra-226 (pCi/g) | Cs-137 (pCi/g) |
|-------------------|---------------|----------------|----------------|
| G217-B-3 | 0.0119 | 1.7307 | 4.7923E-02 |
| G217-SW-1.5 | -0.0574 | 7.8774E-01 | -7.6456E-03 |
| G217-SW-3 | 1.04 | 5.356E-01 | -5.169E-03 |

Grid 217 (Tier 2, Sheet 1): Bottom and sidewall facing Parcel F exceed radiological release criteria. Project action limits (PALs) for chemical analytes have been met. Currently no further action planned.



Radiological Commodities



| Origin | Item Inventory Number | Item Description | Dose Rate@ 1" (uR/hr) |
|--------------|-----------------------|---------------------------|-----------------------|
| Grid 233/232 | HPS-COM-001 | Metal Disc | 800 |
| Grid 228 | HPS-COM-002 | Cooper Tube | 600 |
| Grid 235 | HPS-COM-003 | Metal Nugget | 200 |
| RSY B6 | HPS-COM-004 | Metal Disc | 1,400 |
| RSY C1 | HPS-COM-005 | Metal Disc | 1,000 |
| RSY C3 | HPS-COM-006 | Rock | 800 |
| RSY E8 | HPS-COM-007 | Rock | 100 |
| RSY D2 | HPS-COM-008 | Soil | 240 |
| RSY C4 | HPS-COM-009 | Metal Plate | 460 |
| RSY E8 | HPS-COM-010 | Hydraulic Fluid Container | 1,200 |
| RSY B4 | HPS-COM-011 | Rock | 230 |
| RSY B3 | HPS-COM-012 | Radioluminescent Disk | 160 |
| RSY C6 | HPS-COM-013 | Radioluminescent Disk | 2,000 |
| RSY E3 | HPS-COM-014 | Rock | 470 |
| RSY E3 | HPS-COM-015 | Rock | 500 |
| RSY C4 | HPS-COM-016 | Metal Strip | 600 |
| RSY C4 | HPS-COM-017 | Metal Strip | 800 |
| RSY C4 | HPS-COM-018 | Rock | 30 |



Radiological Commodities - Photos



HPS-COM-016, Metal Strip



HPS-COM-017, Metal Strip



Radiological Commodities - Photos



Radiological Commodity



MPPEH Acceptance Sampling



- Began implementing Acceptance Sampling procedures on July 5, 2011
- Devised a GPS-based investigation process for locating 3-foot x 3-foot grid cells
- 12 MDAS items encountered
- No MEC to date

| MPPEH Clearance Pad Status | |
|---|---------------------------|
| Action | Status (As of July 19) |
| MPPEH Screening by Acceptance Sampling Complete | 6 Pads (approx 1,200 cy) |
| MPPEH QC Complete | 3 Pads (approx 600 cy) |
| MPPEH QA Complete | 2 Pads (approx 400 cy) |



MPPEH Acceptance Sampling (Continued)



Pad with flagged 3-foot x 3-foot grid cells – July 13, 2011



Suspect Asbestos (Waste) Encounter



- Two bags marked asbestos with asbestos-looking material were encountered in Tier 1, grid 161 (quadrant B), at approximately 5 ft bgs
- Area was sprayed down to wet the bags and surrounding soil, then remotely loaded in a double-lined LLRW roll-off bin
- Two samples were collected
- Asbestos **not detected**





Large Debris Processed and Stockpiled





Update



- Filled 112 roll-off bins with LLRW
- Transferred approximately 5,500 cubic yards of non-LLRW to ITSI for offsite disposal
- Used water from frac tank#1 for dust control
- Frac tank#1 demobilized
- Continued erosion control and fence line inspections
- Continued collecting water samples outside of turbidity curtain
- Continued air monitoring





What's Next



- Continue offsite T&D
- Continue implementing Acceptance Sampling for MPPEH clearance
- Continue excavations and over-excavations
- Complete final conditions survey of Tier 3 and upland backfill
- Re-commence Tier 5 excavation





Schedule



| Activity | Date |
|---|---------------------------|
| Continue Hot Spots Excavation and Soil Screening; Extended MPPEH schedule | July – December 2011 |
| Implement Acceptance Sampling Procedures | July – December 2011 |
| Continue Backfill and Site Restoration | July 2011 January 2012 |
| Demobilize | January 2012 |
| Submit Draft Removal Action Completion Report | March 2012 |